



Australian Bureau of Statistics

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Feature Article - The Anthony power development

As early as 1914 it was recognised that the water of the upper Henty and Anthony rivers could be used to generate electricity for use in the mining fields between Zeehan and Rosebery. In 1917 it was proposed to erect a large-scale plant for the reduction of zinc concentrates in the vicinity of Zeehan. To provide electricity for the plant preliminary plans were drawn up for what was known as the Rolleston Scheme, which would allow water to be drawn from several areas, and by means of races and a tunnel, divert the water to a main storage. The site for the power house was to be on the Henty River at its junction with Falls Creek, ten miles exactly from both Rosebery and Zeehan.

This early scheme was greeted enthusiastically because it could come on line quickly, was regarded as economical at a total cost of £500,000, and the area could be reached easily by extending the Lake Margaret two-foot steel tramway.

But the scheme, along with its sister development of the King River, was shelved when it was decided not to construct a smelting works on the West Coast, but to transfer the ore to the established works at Risdon on the bank of the Derwent River.

THE PLANNING OF THE ANTHONY SCHEME

Detailed investigations into the Anthony Scheme began in the early 1980s. In July 1983 the High Court of Australia upheld the power of the Commonwealth Government to prevent construction of the Gordon River Power Development, Stage Two (also known as the Gordon-below-Franklin). This decision threw the Commission's long-term planning into disarray. Within a few weeks the HEC reported to Parliament on two alternative smaller schemes, the King and the Anthony Power developments.

Following Parliamentary approval for the Anthony scheme, investigations were largely completed in parallel with construction of access roads and initial site works.

The Anthony Power Development is situated north of Queenstown and diverts the headwaters of the Henty River across to the Anthony River thus developing the full potential of the Anthony River.

The main storage for the scheme, Lake Plimsoll, with an area of 3.8 square kilometres, was formed by the construction of the 40-metre high concrete-faced rockfill Anthony Dam. The storage is linked to the power station by a 6.8 km long headrace tunnel, which is unlined for most of its length.

The tunnel has an operating flow of 34 cubic metres per second and a flow velocity of about four kilometres per hour.

The underground power station near Lake Murchison contains one turbo-generator, with an installed capacity of 84 megawatts. The water from the power station is discharged into Lake

Murchison to be re-used by the three power stations which make up the Pieman River Power Development: Mackintosh, Bastyan and Reece.

ENVIRONMENTAL ASPECTS

One of the main environmental issues was the preservation of the high scenic qualities existing throughout most of the Anthony area. When designing roads, canals and dams great care was taken to limit the visual impact, thus retaining the integrity of the area.

When locating quarries and other works areas, every opportunity was taken to find sites that would eventually be covered by the new lakes. Excess road spoil and material from other engineering works were also dumped below what would become minimum water levels.

To preserve the tranquillity of beautiful Lake Selina, a small glacial lake in the middle of the Anthony area, the nearby road was moved about half a kilometre to keep it well clear of the lake.

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